

AMENDMENT TO CLAIMS:

Claims 1-14. (Canceled)

15. (Currently Amended) A system for diagnosing a fault, the system comprising:

a knowledge base including a plurality of fault diagnoses and fault symptom queries, wherein each said fault symptom query includes potential responses and images that correspond to the potential responses;

a decision tree module including a decision tree having a plurality of decision points each corresponding to one of the fault symptom queries and a plurality of resolution points each corresponding to one of the fault diagnoses, wherein each said potential response in the decision tree indicates one of the decision points or one of the resolution points and one of said decision points is identified as a starting decision point; and

a user interface module in communication with said decision tree module, said knowledge base and a user access device, said user interface module including instructions to implement a method comprising:

designating the starting decision point as the next decision point;

transmitting the fault symptom query corresponding to the next decision point and an option to view all of the resolution points to the user access device;

receiving a reply to the query; ~~the reply including one of the potential responses or a request to view all of the resolution points in the decision tree;~~

determining if the reply includes one of the potential responses or if the reply includes a request to view all of the decision points;

in response to determining that the reply includes one of the potential responses:

continuing said transmitting, ~~the fault symptom query and receiving, and determining a reply~~ until said one of the potential responses indicates one of the resolution points

or until it is determined that the reply includes a request to view all of the decision points,
wherein if said one of the potential responses indicates one of the decision points then said one of the decision points is designated as the next decision point; and

transmitting the fault diagnosis corresponding to said one of the resolution points to the user access device; and

in response to determining that the reply includes a request to view all of the resolution points:

transmitting diagnostic images associated with each of the resolution points in the decision tree to the user access device, thereby allowing a user to diagnose a fault without having to respond to queries for traversing the decision tree.

16. (Previously Presented) The system of claim 15 wherein said fault diagnoses include one or more of the diagnostic images.

17. (Previously presented) The system of claim 15 wherein said fault diagnoses include a description of the fault.

18. (Previously presented) The system of claim 15 wherein said fault diagnoses include a likely cause of the fault.

19. (Previously presented) The system of claim 15 wherein said fault diagnoses include recommended remedial actions.

20. (Previously presented) The system of claim 15 wherein a user accessing the user access device is a customer.

21. (Previously presented) The system of claim 15 wherein a user accessing the user access device is a customer support representative.

22. (Previously presented) The system of claim 15 wherein the fault relates to a technical

product.

23. (Previously presented) The system of claim 15 wherein the fault relates to a technical service.

24. (Previously presented) The system of claim 15 wherein the user access device is a personal computer.

25. (Previously presented) The system of claim 15 wherein the communication between the user interface module and the user access device is via the Internet.

26. (Previously presented) The system of claim 15 wherein the fault is a defective circuit board.

27. (Previously Presented) The system of claim 26 wherein the fault symptom query is directed to a determination of what type of defect the defective circuit board contains.

28. (Currently Amended) A method for diagnosing a fault, the method comprising:
identifying a starting decision point on a decision tree, wherein the decision tree includes a plurality of decision points each corresponding to a fault symptom query and a plurality of resolution points each corresponding to a fault diagnosis, wherein each said fault symptom query includes potential responses and images that correspond to the potential responses and each said potential response in the decision tree indicates one of the decision points or one of the resolution points;

designating the starting decision point as the next decision point;

transmitting the fault symptom query corresponding to the next decision point and an option to view all of the resolution points to a user access device;

receiving a reply to the query, ~~from the user access device, the reply including one of the potential responses or a request to view all of the resolution points in the decision tree;~~

determining if the reply includes one of the potential responses or if the reply includes a request to view all of the decision points;

in response to determining that the reply includes ing one of the potential responses:

continuing said transmitting, ~~the fault symptom query and receiving, and~~
determining a reply until said one of the potential responses indicates one of the resolution points
or until it is determined that the reply includes a request to view all of the decision points,

wherein if said one of the potential responses indicates one of the decision points then said one of the decision points is designated as the next decision point; and

transmitting the fault diagnosis corresponding to said one of the resolution points to the user access device; and

in response to determining that the reply includes ing a request to view all of the resolution points:

transmitting diagnostic images associated with each of the resolution points in the decision tree to the user access device, thereby allowing a user to diagnose a fault without having to respond to queries for traversing the decision tree.

29. (Previously Presented) The method of claim 28 wherein the fault diagnoses include one or more of the diagnostic images.

30. (Previously presented) The method of claim 28 the fault diagnoses include a description of the fault.

31. (Previously presented) The method of claim 28 wherein the fault diagnoses include a likely cause of the fault.

32. (Previously presented) The method of claim 28 wherein said fault diagnoses include recommended remedial actions.
33. (Previously presented) The method of claim 28 wherein the fault relates to a technical product or technical service.
34. (Currently Amended) A computer implemented system for diagnosing a fault, the system comprising:

a knowledge base including a plurality of fault diagnoses and fault symptom queries, wherein each said fault symptom query includes potential responses and images that correspond to the potential responses;

a decision tree module including a decision tree having a plurality of decision points each corresponding to one of the fault symptom queries and a plurality of resolution points each corresponding to one of the fault diagnoses, wherein each said potential response in the decision tree indicates one of the decision points or one of the resolution points and one of said decision points is identified as a starting decision point; and

a user interface module in communication with said decision tree module, said knowledge base and a user access device, said user interface module including instructions to implement a method comprising:

designating the starting decision point as the next decision point;

transmitting the fault symptom query corresponding to the next decision point and an option to view all of the resolution points to the user access device;

receiving a reply to the query, ~~the reply including one of the potential responses or a request to view all of the resolution points in the decision tree;~~

determining if the reply includes one of the potential responses or if the reply includes a request to view all of the decision points;

in response to determining that the reply includes ~~ing~~ one of the potential

responses:

continuing said transmitting, ~~the fault symptom query and receiving, and determining a reply~~ until said one of the potential responses indicates one of the resolution points or until it is determined that the reply includes a request to view all of the decision points, wherein if said one of the potential responses indicates one of the decision points then said one of the decision points is designated as the next decision point; and

transmitting the fault diagnosis corresponding to said one of the resolution points to the user access device; and

in response ~~determining that~~ the reply includes a request to view all of the resolution points:

transmitting diagnostic images associated with each of the resolution points in the decision tree to the user access device, thereby allowing a user to diagnose a fault without having to respond to queries for traversing the decision tree.

35. (Currently Amended) A system for diagnosing defects in circuit boards, the system comprising:

a knowledge base including a plurality of fault diagnoses and fault symptom queries, wherein said fault diagnoses include diagnostic images, a description of the fault, and a likely cause of the fault, wherein each said fault symptom query includes potential responses and images that correspond to the potential responses, one of said fault symptom queries ~~being determining~~ isolating a type of defect, said images corresponding to said potential responses including a rim defect image and a resist plug defect image;

a decision tree module including a decision tree having a plurality of decision points each corresponding to one of the fault symptom queries and a plurality of resolution points each corresponding to one of the fault diagnoses, wherein each said potential response in the decision tree indicates one of the decision points or one of the resolution points and one of said decision points is identified as a starting decision point; and

a user interface module for providing customer support, said user interface module being in communication with said decision tree module, said knowledge base and a user access device,

said user interface module including instructions to implement a method comprising:

designating the starting decision point as the next decision point;

transmitting the fault symptom query corresponding to the next decision point and
an option to view all of the resolution points to the user access device;

receiving a reply to the query; ~~the reply including one of the potential responses~~
~~or a request to view all of the resolution points in the decision tree;~~

determining if the reply includes one of the potential responses or if the reply
includes a request to view all of the decision points;

in response to determining that the reply includes ~~ing~~ one of the potential
responses:

continuing said transmitting, the fault symptom query and receiving, and
determining a reply until said one of the potential responses indicates one of the resolution points
or until it is determined that the reply includes a request to view all of the decision points,
wherein if said one of the potential responses indicates one of the decision points then said one
of the decision points is designated as the next decision point; and

transmitting the fault diagnosis corresponding to said one of the resolution points
to the user access device, said fault diagnosis including said type of defect; and

in response to determining that the reply includes ~~ing~~ a request to view all of the
resolution points:

transmitting diagnostic images associated with each of the resolution
points in the decision tree to the user access device, thereby allowing a user to diagnose a fault
without having to respond to queries for traversing the decision tree.

36. (Previously Presented) The system of claim 35, wherein said instructions further
comprise:

transmitting a recommended remedial action based on the fault diagnosis to the
user access device.

37. (Newly Added) The system of claim 15 wherein the option to view all of the resolution points includes only those decision points beneath the next decision point.

38. (Newly Added) The system of claim 15 wherein the option to view all of the resolution points includes all of the resolution points in the decision tree.